Literature Searching

Reaxys is one of the largest document repositories in chemical science and provides various different means to find literature on chemistry related topics. This document showcases two examples for searching documents and chemical information in Reaxys.

In the workflows we show examples that include:

- How to use the Quick search feature
- How to work with and interpret the results preview
- How to narrow initial answers using various filter options
- How to get to citing articles via Scopus

Finding documents discussing fluorescent sensors

Fluorescent molecular sensors can be applied in many disciplines, including medical diagnostics, physiological imaging, biochemical and chemical analysis or monitoring systems. In this case I would like to know more about published literature on the topic “supramolecular chemistry fluorescent sensing” and to see whether there is a review article of interest to me.

1. On the Reaxys home page click the Search Reaxys field and type supramolecular chemistry fluorescent sensing
   a. Click Find (or press Enter on your keyboard)
Reaxys analyzes the query input and returns three result sets in a Results Preview:

- The first set is the result of a query that considers all query terms, while the second and third sets search for parts of the query.
- From the list of result sets you can now select the one which best fits your needs, without reformulating your query.

2. Click View Results for the first set of results to retrieve the documents for supramolecular chemistry and fluorescent sensing:
One of the reviews is cited many times and looks interesting to me.

- Click ‘Cited # times’ to open Scopus with the documents that cite this article.
- Click ‘Abstract’ to view the document’s abstract.
- Click ‘Index Terms’ to view the index terms that were assigned to this article.
- Click ‘Substances’ to view substances that are indexed from the document.
- Click ‘Reactions’ to view reactions that are indexed from the document.
- Click ‘Full Text’ will direct you to the publisher’s website for viewing the full text article.

Please Note: depending on the article or patent, further options may be presented such as Front Page Information.
Total Synthesis of Taxol

Taxol is a complex molecule used as a drug to treat ovarian, breast, lung, pancreatic and other cancers. Its total synthesis is challenging, but nevertheless very interesting to learn. What is known about the total synthesis of taxol and who worked on it and when?

You can start to answer questions like this in Reaxys either through Reaction Records (draw the structure of taxol and specify the substance be a product), or through Substance Records (find the Substance Record for taxol and browse through the preparations listed), or through Document Records (where simple keyword searches relating to substances/reactions can directly give important records). In this case, we shall illustrate how to approach this question through Document Records.

1. Click **Quick search to return to Reaxys’ home page**
   a. If necessary, clear the **Search Reaxys** field by clicking the x

2. Click the **Search Reaxys** field and type **total synthesis of taxol**
   a. Click **Find** (or press **Enter** on your keyboard)
Reaxys analyzes the query input and returns four result sets in a Results Preview:

- The first results set, Reactions, is the result of looking at reaction records.
- The three Documents sets are results of looking at document records with a different combination of the original search terms.
- From the list of result sets you can now select the one which best fits your needs, without reformulating your query.

3. Click **View Results** for the second set of results to retrieve documents that discuss total synthesis and taxol.
4. The results are displayed

5. In the Filters and Analysis Panel, expand **Authors**

By looking at the author filter I see that Nicolaou is one of the top publishing authors on this topic.

6. In the **Authors** filter:
   a. Check the box for **nicolaou**
   b. Click **Limit to**
The Results list is now filtered to the Documents by Nicolaou.

7. Expand Publication Year

It shows that most of the work by Nicolaou was done between 1993 and 1998:
One of the reviews is cited many times and looks interesting to me. This is a good starting document to evaluate the total synthesis of taxol:

- Click ‘Cited # times’ to open Scopus with the documents that cite this article.
- Click ‘Abstract’ to view the document’s abstract.
- Click ‘Index Terms’ to view the index terms that were assigned to this article.
- Click ‘Substances’ to view substances that are indexed from the document.
- Click ‘Reactions’ to view reactions that are indexed from the document.
- Click ‘Full Text’ will direct you to the publisher’s website for viewing the full text article.

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